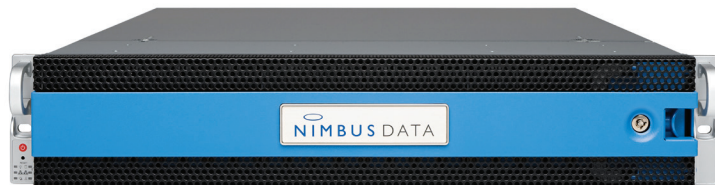# E-Class Flash Memory Platform

Unmatched solid state storage scalability, fault-tolerance, and efficiency for next-gen datacenters

Highlights

• 100% Flash Memory (solid state storage)

• Up to 50x faster than conventional disk arrays

• Consumes up to 80% less power and rackspace

• Unified multi-protocol SAN and NAS platform

• No single point of failure for high-availability

• Ethernet, Fibre Channel, and/or Infiniband ports

• Comprehensive data management software

Advantages

• Performance: Up to 800,000 4K IOps

• Throughput: Up to 8,000 MBps

• Latency: As low as 0.2 ms

• Efficiency: As low as 5 W per TB

• Scalability: From 10 TB to 500 TB

• Density: Up to 10 TB per rack U

• Simplicity: All-inclusive HALO software

Next-generation Intelligent Solid State Storage Platform

The E-Class Flash Memory System is the industry's first fully-redundant multiprotocol solid state storage system. Scalable to 500 TB with power consumption as low 5 watts per TB and density as high as 20 TB per U, the E-Class outperforms and costs less to operate than conventional 15K pm disk arrays. With no-single-point-of-failure, the Nimbus E-Class is ideal for applications such as enterprise-wide server virtualization, database clusters, Web infrastructure, VDI , and high-performance computing.

The E-Class consists of a pair of redundant controllers and up to 24 solid state storage enclosures. Each controller supports four active-active IO modules including 10 Gigabit Ethernet, Fibre Channel, and Infiniband. Nimbus software automatically detects controller and path failures, providing non-disruptive failover as well as online software updates and online capacity expansion. With RAID protection and hot-swappable flash, power, and cooling modules, components can be easily replaced without downtime. The E-Class is powered by Nimbus' award-winning HALO storage operating system for comprehensive unified SAN/NAS features.

Models	E6400M (controller)	6 x 6Gbps SAS ports and 4 IO slots	
	E1000X (expansion)	10.0 TB: 24 x 400 GB Enterprise Flash Modules	
	E2000X (expansion)	20.0 TB: 24 x 800 GB Enterprise Flash Modules	
Connectivity	Network Ports	Up to 16 ports of Gigabit Ethernet	
		Up to 16 ports of 10 Gigabit Ethernet	
		Up to 8 ports of 8 Gbps Fibre Channel	
		Up to 8 ports of 56 Gbps FDR Infiniband	
	Management Ports	2 x GbE (RJ-45)	
Storage	Maximum Flash Modules	576	
	Maximum Capacity	500 TB	
	NAND Configuration	Enterprise-grade flash with 28% reserve provision	
System	Software	Nimbus HALO operating system	
	Processor Cores	12	
	Redundant Components	Controllers, flash modules, power supplies, fans, and IO modules	
Platform Support	Operating System Support	Windows Server 2003/2008, Windows 7, Linux, Solaris, HP/UX, Netware, AIX	
	Virtualization Support	VMware ESX Server, Citrix XenServer, Microsoft Hyper-V, Virtual Iron	
Dimensions		**Controller**	**Solid State Storage Enclosure**
	Height	2 RU Units (3.46 in or 87.9 mm)	2 RU Units (3.46 in or 87.9 mm)
	Width	17.49 in or 443.7 mm	17.49 in or 443.7 mm
	Depth	25.18 in or 639.6 mm	25.18 in or 639.6 mm
	Weight (maximum)	58.0 lbs or 26.3 kg	42.0 lbs or 19.1 kg
Power	Voltage	100 - 240 VAC	
	Frequency	48 - 62 Hz	
	Electrostatic Discharge	15 KV per test specification	
Environmental	Ambient Temperature	Operating: 5 to 35 ℃, Non-operating: 1 to 50 ℃	
	Relative Humidity	Operating: 10% to 80% non-condensing	
	Altitude	Operating: 0 to 2,133 m, Non-operating: -305 to 12,192 m	
	Acoustics	< 7.0 BA in idle state at 23 ℃ ambient temperature	
Shock & Vibration	Operational Shock	5G for 10ms	
	Operational Vibration	Random 0.21 grms 5-500 Hz	
	Non-operational Shock	30G for 10ms	
	Non-operational Vibration	Random 1.04 grms 2-200 Hz	
Agency Approvals	UL and cUL listed. Tested to UL 60950. FCC Class A. Certified Body Certificate and Report to IEC60950.		
	CE marked to requirements of Low Voltage Directive 73/23/EEC and Electromagnetic Compatibility Directive 89/336/EEC.		
Warranty & Support	One (1) year warranty standard, extendable to seven (7) years.		
	Premium onsite service options and spares kits available.		

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